Electronic TUBES

6CE5-3CE5-4CE5

PENTODE

DESCRIPTION AND RATING

The 6CE5 is a miniature sharp-cutoff pentode designed for use as a wide-band, radio-frequency amplifier in television receivers. Features of the tube include high transconductance and low interelectrode capacitance. The 6CE5 also exhibits a controlled heater warm-up characteristic which makes it especially suited for use in television receivers that employ series-connected heaters.

Except for heater ratings, the 3CE5 and the 4CE5 are identical to the 6CE5.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential	3CE5	4CE5	6CE5	
Heater Voltage, AC or DC	3.15	4.2	6.3	Volts
Heater Current	0.6	0.45	0.3	Amperes
Heater Warm-up Time*	11	11	11	Seconds
Direct Interelectrode Capacitances†				
Grid-Number 1 to Plate, maximum			0.03	μμf
Input			6.5	μμf
Output			1.9	μμf

MECHANICAL

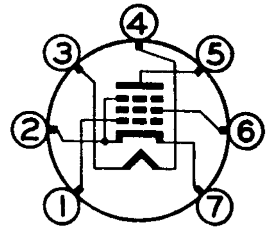
Mounting Position—Any
Envelope—T-5½, Glass
Base—E7-1, Miniature Button 7-Pin

MAXIMUM RATINGS

DESIGN-CENTER VALUES

Plate Voltage	300	Volts
Screen-Supply Voltage	300	Volts
Screen Voltage—See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	Volts
Plate Dissipation	2.0	Watts
Screen Dissipation	0.5	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total DC and Peak	200	Volts

BASING DIAGRAM

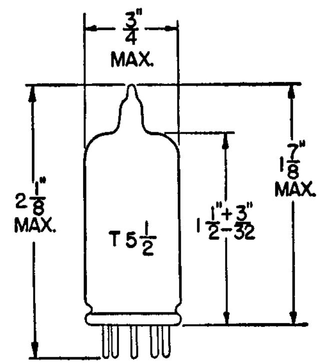


RETMA 7BD

TERMINAL CONNECTIONS

Pin 1—Grid Number 1
Pin 2—Cathode, Grid Number 3 (Suppressor), and Internal Shield
Pin 3—Heater
Pin 4—Heater
Pin 5—Plate
Pin 6—Grid Number 2 (Screen)
Pin 7—Cathode, Grid Number 3 (Suppressor), and Internal Shield

PHYSICAL DIMENSIONS



RETMA 5-2

CHARACTERISTICS AND TYPICAL OPERATION

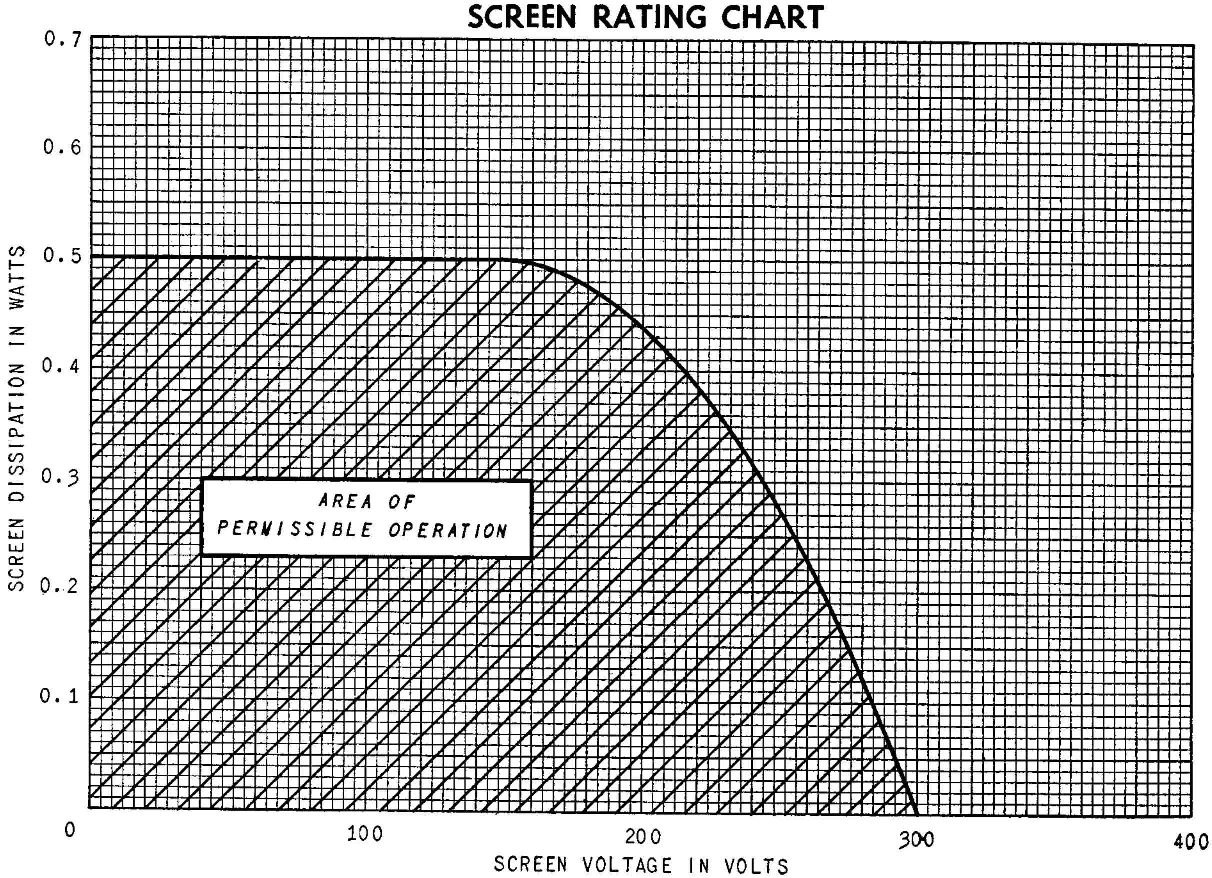
CLASS A_1 AMPLIFIER

Plate Voltage	125	Volts
Screen Voltage	125	Volts
Grid-Number 1 Supply Voltage	−1.0	Volts
Grid-Number 1 Resistor (bypassed)	1.0	Megohms
Plate Resistance, approximate	0.3	Megohms
Transconductance	7600	Micromhos
Plate Current	11	Milliamperes
Screen Current	2.8	Milliamperes
Grid-Number 1 Voltage, approximate		
I_b = 35 Microamperes	−5.0	Volts

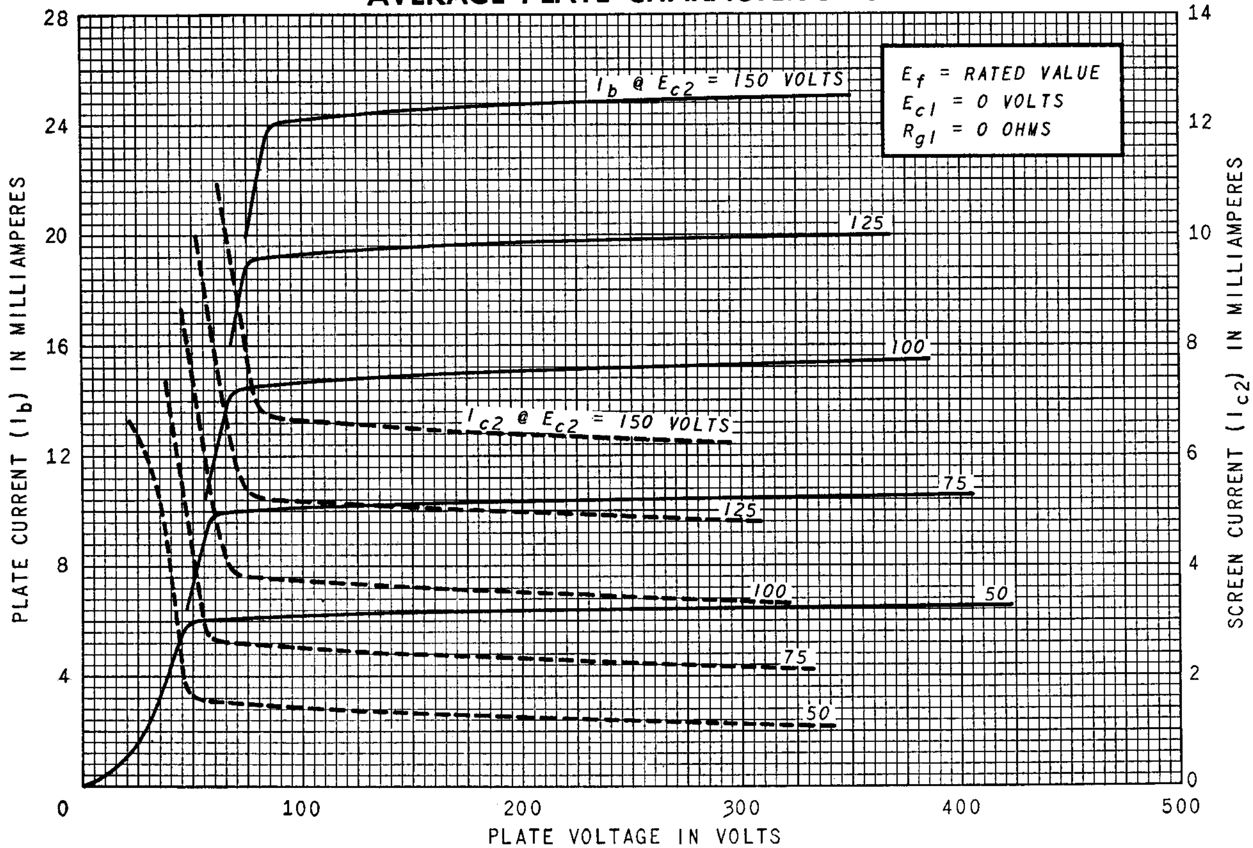
* The time required for the voltage across the heater to reach 80 per cent of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times the rated heater voltage divided by the rated heater current.

† Without external shield.

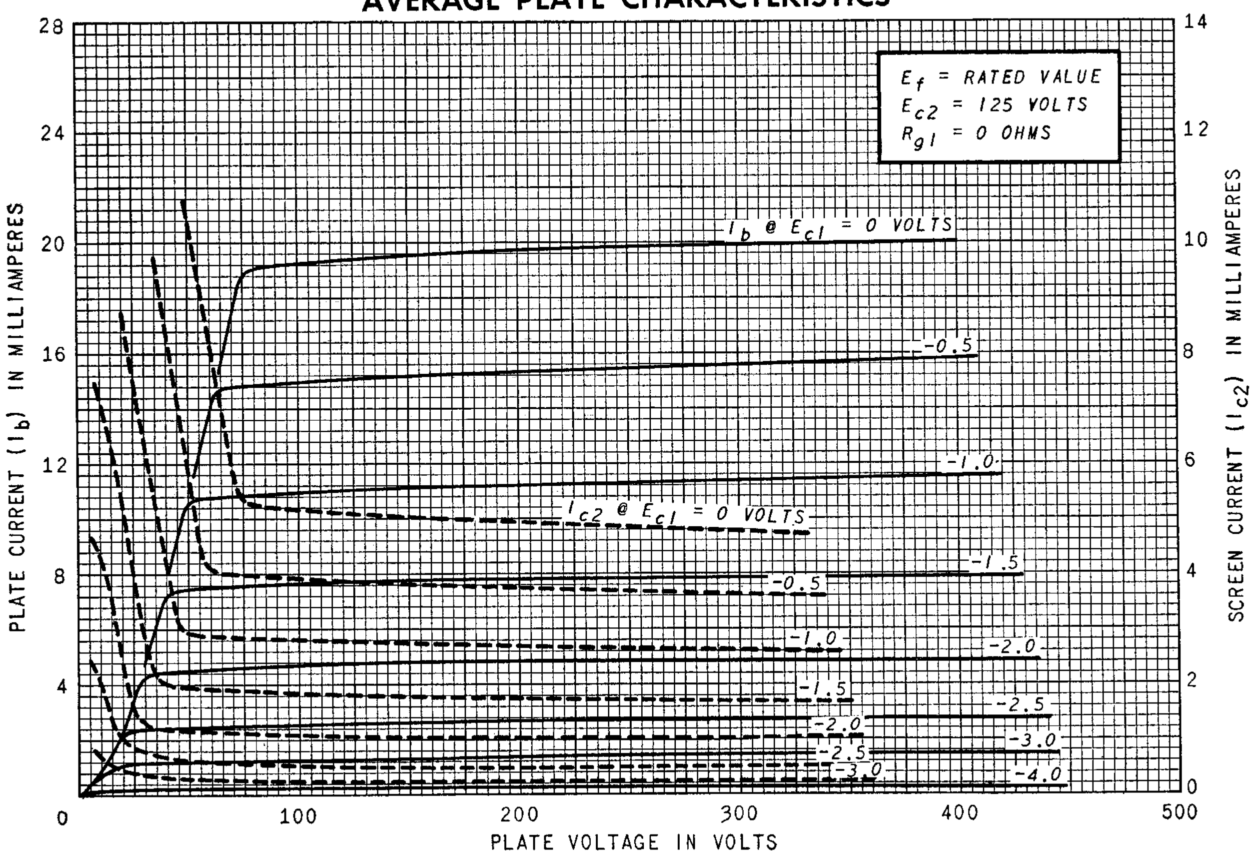
SCREEN RATING CHART



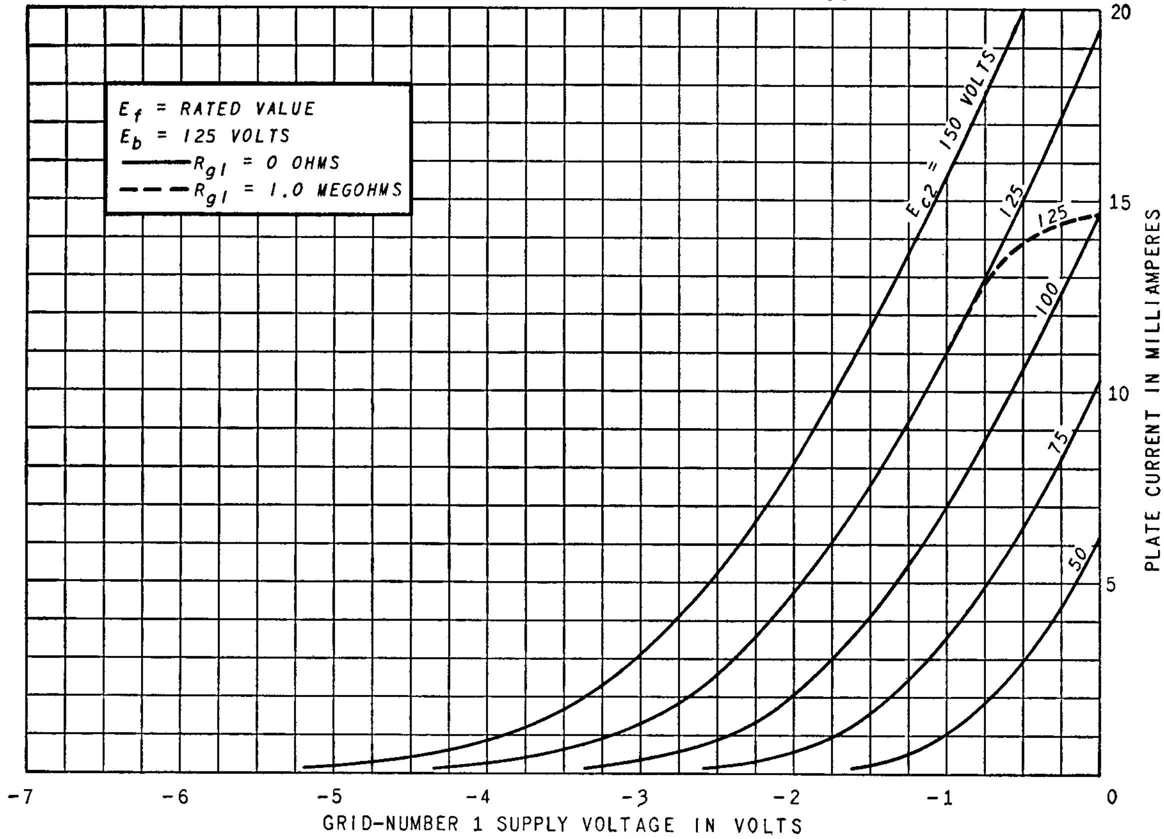
AVERAGE PLATE CHARACTERISTICS



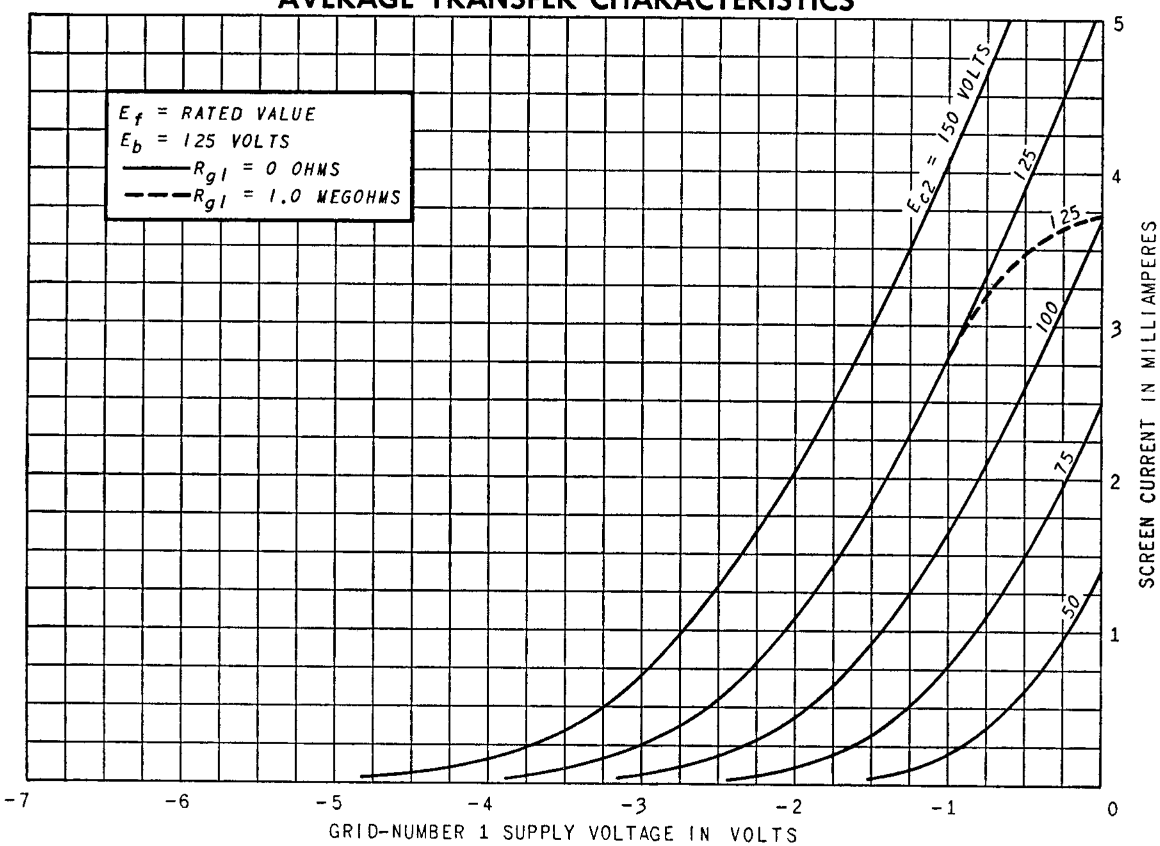
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



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